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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,079	02/07/2001	Wataru Kubo	P20277	4565

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2656

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,079

Applicant(s)

KUBO, WATARU

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Applicant's response of 10/7/05 has been considered with the following results.

Claim Objections

Claim 5 is objected to because of the following informalities: The phrase "an objective lens" in line 3 and as further defined in line 4 does not agree with the disclosed single objective lens. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-3, 6 and 8 are rejected under 35 U.S.C. 102(a) as being anticipated by item 01 LPX 401 or LPX 407 as noted in the MELLES GRIOT catalog. Alternatively, these claims can be rejected under 35 USC 103 as being obvious over the above further considered with Suda et al ("352).

The following analysis is made.

Claim 1

Melles Griot catalogue/pgs 6.2-6.3

A single objective lens for an optical pick-up
that converges a parallel light beam incident
thereon onto a recording layer of an optical medium,
said single objective lens comprising:

see page 6.2

a single glass plano-convex lens having a
rotationally symmetrical convex aspherical surface
at the incident side of the parallel light beam

see above figure

see page 6.3 for f# of
the LPX 401, or LPX 407

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and a flat surface at the side of said optical medium,
and having a numerical aperture of at least 0.7.

The above claimed elements are as analyzed.

If applicant can convince the examiner that the single plano-convex lens is not an "aspherical surface", then the examiner relies upon the additional teaching from Suda et al – see the discussion of the "non-spherical" lens, and why – starting at col. 3, lines 18-29.

It would have been obvious to modify the above single plano-convex lens with the above teaching from Suda et al; motivation is for "ease of manufacturing".

With respect to claim 2, the limitation is met.

With respect to the limitations of claim 3, this is drawn to a manufacturing capability, and in keeping with *In re Marosi, 710 F.2d 798, 218 USPQ (Fed. Cir. 1983)*, as well as MPEP § 2113, product by process discussion, the examiner concludes such is present. Alternatively see the discussion in the previously cited patent to Kittaka et al at col. 1, lines 28-40 with respect to conventional manufacturing of glass lenses by dies.

With respect to claims 6 and 8, such is the case.

The above attached copies of the specifications for the LPX 401 and 407 plan-convex lenses meet the above claimed limitations.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Response to Arguments

Applicant's arguments filed 10/7/05 have been fully considered but they are not persuasive. The examiner concludes that the singlet lens noted in the above catalog does indeed have an aspherical surface at the incident side as claimed. Furthermore, such a lens is rotationally symmetrical else it would

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be noted as non-rotationally symmetrical. Alternatively, if such is not inherent, then under 103 considerations, such is obvious for the reasons stated above.

2. Claims 1-3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda et al further considered with Morishita et al and all further considered with Lee et al ('797).

Suda et al disclose a single non-spherical lens. The examiner interprets such meeting the "rotational symmetrical". The material is not identified (glass).

Morishita et al teach the use of "glass" with the appropriate refractive index value.

The na limitation is not present.

Lee et al – at col. 12 lines 21 plus as it describes figure 30, indicates that the na varies predicated upon the thickness of the read record medium.

It would have been obvious to modify the base system of Suda et al, with the above teaching from Morishita et al and Lee et al, motivation is to use existing materials (glass) with the appropriate index of refraction for the reasons stated in Morishita et al and further with the teaching from Lee et al, motivation is to permit reading of more recent record media.

With respect to the limitations of claim 3, this is drawn to a manufacturing capability, and in keeping with In re Marosi, 710 F.2d 798, 218 USPQ (Fed. Cir. 1983), as well as MPEP § 2113, product by process discussion, the examiner concludes such is present. Alternatively see the discussion in the previously cited patent to Kittaka et al at col. 1, lines 28-40 with respect to conventional manufacturing of glass lenses by dies.

With respect to claim 8, such is the case.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 as stated in paragraphs 1 or 2 above, and further in view of Kiriki et al.

The ability of having an appropriate outer flange in this environment is taught by the Kiriki et al reference.

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It would have been obvious to modify the base system as stated in either paragraphs 1 or 2 above with this additional teaching, motivation is in order to provide for a molded glass lens with a flange so as to be retrieved from the mold.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 as stated in paragraph 2 above, and further in view of either Jutte or Tanaka et al ('641).

With respect to the rms value, note that Jutte teaches such in col. 5 lines 15-20 as well as col. 4 lines 65 plus. Alternatively, Tanaka et al teach such as well.

It would have been obvious to modify the base system with the teachings from either of the above noted references; motivation is to ensure proper focusing for tracking purposes.

5. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over either the LPX 401/407 lenses and Suda et al as relied upon in paragraph 1 above, or Suda et al with Morishita et al and with Lee et al ('797) as relied upon in paragraph 2 and each group further considered with Awano et al.

Claim 5 follows claim 1 and includes the appropriate magnetic coil limitation.

Awano et al teach such --see col. 3 lines 10 plus.

It would have been obvious to modify the base system of either the LPX lens and Suda et al, or Suda and Morishita et al and Lee et al with this additional teaching, motivation is to reduce the overall footprint of an optical device by making it more compact. The use of the coils as part of the actuating subunits/elements is made easier.

With respect to the limitation of claim 9, such is present.

6. Claims 5 and 9 are rejected under 35 U.S.C. 102 (b) as being anticipated by Yamamoto et al.

With respect to Yamamoto et al, the system is drawn to an objective lens device, which has a light source for emitting a light beam and an objective lens device - a doublet system- and such comprises of a single glass lens with the appropriate na limitation-, also note figure 30 wherein a single glass lens is provided with the aspherical and planar surface requirements. Also, see the description of figure 29 for the magnetic coil arrangement.

With respect to the limitation of claim 9, such is present.

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7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 5 and 9 as stated in paragraphs 5 or 6 above, and further in view of either Jutte or Tanaka et al.

With respect to the rms value, note that Jutte teaches such in col. 5 lines 15-20 as well as col. 4 lines 65 plus. Alternatively, Tanaka et al teach such as well.

It would have been obvious to modify the base system with the teachings from either of the above noted references; motivation is to ensure proper focusing for tracking purposes.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 5 and 9 as stated in either paragraphs 5 or 6 above, and further in view of Brezoczky et al.

Although there is no clear depiction of a focusing actuator in the above noted references, the use of such items in this environment is taught by Brezoczky et al, see the description of figure 5.

It would have been obvious to modify either of the base systems as noted above in either paragraphs 4 or 5 with the additional focusing actuator, motivation is to permit a dynamic focusing ability and hence properly reproduce the information read from the record medium.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thursday 8 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Aristotelis M Psios
Primary Examiner
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A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the bottom.

AMP